

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001330**Date Inspected:** 20-Jan-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Xian Ping, Wu Ming Kai**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower mock ups and OBG components**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) inspector, Scott Croff, was present at Zhenhua Port Machinery Company, Ltd (ZPMC) to observe the scheduled mock up construction and production construction of the SAS Superstructure.

Bay 1: The QA inspector observed ZPMC personnel operating a milling machine. The QA inspector noted that 8 closed rib plates were loaded into the milling machine and the edges were being milled smooth and square. See the attached photos.

Bay 3: The QA inspector observed a ZPMC worker on SP035-01. As the QA inspector approached the area, the QA inspector observed shielded metal arc welding (SMAW) being conducted. The welding had been completed upon the arrival of the QA inspector and the QA inspector observed the ZPMC worker picking up welding equipment and vacating the work area. The QA inspector identified the electrode that was being used as 4.0mm diameter TL-508. The QA inspector noted that approximately 40mm of repair weld has been deposited on SP035-01-008. The QA inspector did not observe any preheating equipment in the area of this welding and the QA inspector did not observe the ZPMC worker putting away any equipment that could have been used for preheating. The QA inspector noted that there is evidence of magnetic particle testing (MT) having been conducted on this weld and there is an arrow drawn on the part, pointing to the area that was just welded. The QA inspector then asked several other ZPMC workers in Bay 3 if they knew who the welder was and who the Quality Control (QC) inspector was. The QA inspector was informed that CWI Xu Xian Ping was the QC inspector. The QA inspector asked where the CWI was and the QA inspector was informed that Xu Xian Ping was in the office and not in Bay 3 at this time. The QA inspector was not provided with any other information regarding this

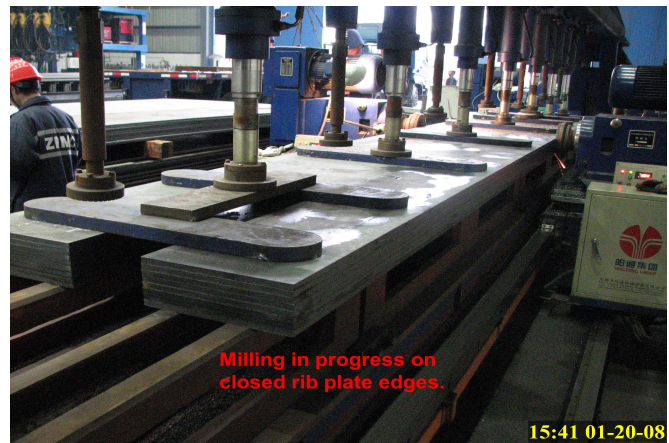
WELDING INSPECTION REPORT

(Continued Page 2 of 2)

observed welding. See the attached photo of the repair weld.

The QA inspector observed ZPMC non-destructive testing (NDT) personnel finish ultrasonic testing (UT) of complete joint penetration (CJP) butt splices on T-stiffeners that will be used for bottom plate assemblies. The QA inspector noted that BP022-01 welds 043, 044, 045, 046, 047, 048, BP023-01 welds 043, 044, 045, 046, 047, 048 and BP024-01 welds 047 and 048 are finished and appear to have been accepted after UT by ZPMC NDT personnel. The QA inspector observed ZPMC workers in the process of cutting the T-stiffeners for the next phase of fabrication.

Bay 7: The QA inspector did not observe any ZPMC personnel working in Bay 7 during this shift. The QC inspector Wu Ming Kai also informed the QA inspector that there was no work scheduled at this time.



Summary of Conversations:

As noted above, the QA inspector Scott Croff had conversations with ZPMC personnel in Bay 3. The QA inspector's conversations were regarding the observed repair welding on SP035-01-008. The QA inspector attempted to discover who the welder was, what welding procedure specification was used, if there was any documented preheating of the base metals prior to the repair welding and the purpose of the repair weld (was there an MT indication that was removed prior to the repair welding). The details of the conversations are described above. There were no other notable conversations during this shift.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Croff, Scott	Quality Assurance Inspector
Reviewed By:	Cuellar, Robert	QA Reviewer